

blocks, each block generally comprising a two dimensional array of pixels;

(c) an array of controllable modulators to independently modulate each of the raster elements for each of said P blocks; and

M1 (d) a surface on which said P image blocks of a total number of M pixels are formed and displayed, where the number M exceeds the number N and where said surface preceding components of (a), (b) and (c) are placed in the mentioned order of the light path of the complementary screen.

57. (Amended) A method for forming an image on an image display surface by forming a plurality of constituent blocks of said image, so that the image is presented as comprised of a plurality of blocks, comprising the steps of:

(a) providing at least one complementary screen having a two dimensional array of N pixels from which raster elements of one or more pixels are generated with one or more of said raster elements to comprise a block of an image;

M2 (b) using a raster multiplying system comprising a plurality of light dividing elements for dividing an incoming light beam of each raster element into parts, with said light dividing elements to separate a raster element corresponding light beam into a plurality of beam components to form copies of each said generated raster element in P blocks, each block generally comprising a two dimensional array of pixels;

(c) transmitting the formed beam components to an array of controllable modulators to independently modulate the beam component corresponding to each raster

element copy in accordance with control signals applied for each of said P blocks;

M2 (d) repeating the procedure successively generating other raster elements from said complementary screen with said elements to simultaneously form a modulated raster in said blocks; and

(e) displaying the P image blocks having a total number of M pixels on an image display surface, where M is greater than N.

69. (Amended) A 3D holographic image display system comprising:

(a) at least one complementary screen of one of light emitting or light source modulating devices in a two dimensional array of N (a real number) pixels, from which raster elements comprising one or more pixels are generated;

M3 (b) a raster multiplying system comprising a plurality of passive and at least partly light transmitting elements to form copies of said generated raster elements of a complementary screen, with said raster element copies forming a raster in P blocks with each block generally comprising a two dimensional array of pixels;

(c) an array of controllable modulators to independently modulate the raster of each of said P blocks;

(d) a surface on which a hologram blocks of total number of M pixels are formed, where the number M exceeds number N and where said surface preceding components of (a), (b) and (c) are placed in the mentioned order of the light path of the complementary screen; and

M3 (e) a holograph generator for producing a 3D holographic image from said surface.

71. (Amended) A system as in claim 48 used for image recording further comprising:

M4 (e) a photosensitive plane on which an outer image to be recorded is produced, said outer image comprising a plurality of said blocks, each block being of a two dimensional array of pixels, and all said blocks comprising M pixels, where the number M exceeds the number N, and where said system components of (a), (b) and (c) are placed in the mentioned order of the light path of the complementary screen; and

(f) means to scan said outer image on said photosensitive plane into electric signals for recording.

M5 75. (Amended) A method as in claim 57 further comprising the step of generating a 3D image from said image display surface.

M6 76. (Amended) A method as in claim 57 further comprising the step of subjecting raster elements of said complementary screen to additional optical compression for increasing dot per inch resolution.

M7 78. (Amended) A system as in claim 48 further comprising partly transparent